



**Sonic Cement
Bond Log**

Pioneer Energy Services

API No.

15-063-22099-00-00

Company **Cobalt Energy LLC.**

Well **Brooks No. 1-18**

Field

County **Gove**

State **Kansas**

Location

**NE-SW-SE-NW
2219' FNL & 1761' FWL**

Other Services

Perf @ 4417-20
4084-4091

Sec: **18** Twp: **11 S** Rge: **16 W**

Elevation

K.B. 2669
D.F. 2668
G.L. 2664

Permanent Datum Ground Level Elevation 2664
Log Measured From Ground Level 5' Ft. Above Perm. Datum
Drilling Measured From Ground level

Run Number	One
Date Survey	4/04/2013
Date Cementing	3/28/2013
Type Cementing Operation	Primary
Depth Driller	4568
Depth Logger	4517
Logged Interval	4517 to 3000
Casing Driller	4.5" @ T.D.
Float Collar -- D.V. Tool	2233 @
Squeeze Depth	////
Amount & Type Cement	////
Amount & Type Admix	////
Type Fluid In Hole	Water
Fluid Level	Full
Salinity PPM CL	////
Weight lb/gal -- Vis.	////
Approx. Logged Cement Top	3135
Calculated Cement Top	////
Max. Hole Temperature	109
Tool No.	RBT 4-4
Spacing Recorded	3-5
Equipment -- Location	14 A Drilling Hays
Recorded By	Mr. Brett Hildebrand
Witnessed By	

<<< Fold Here >>>

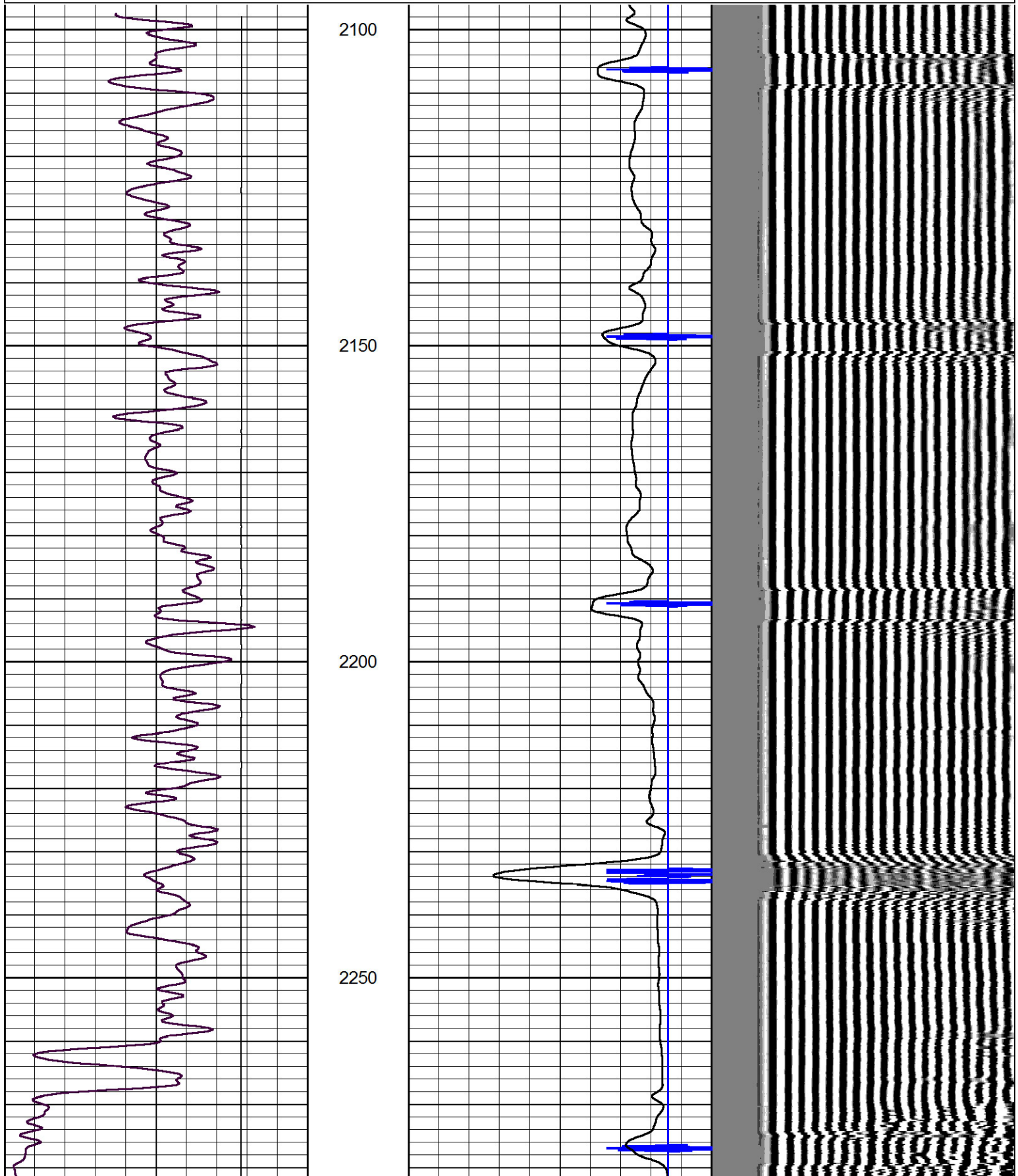
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

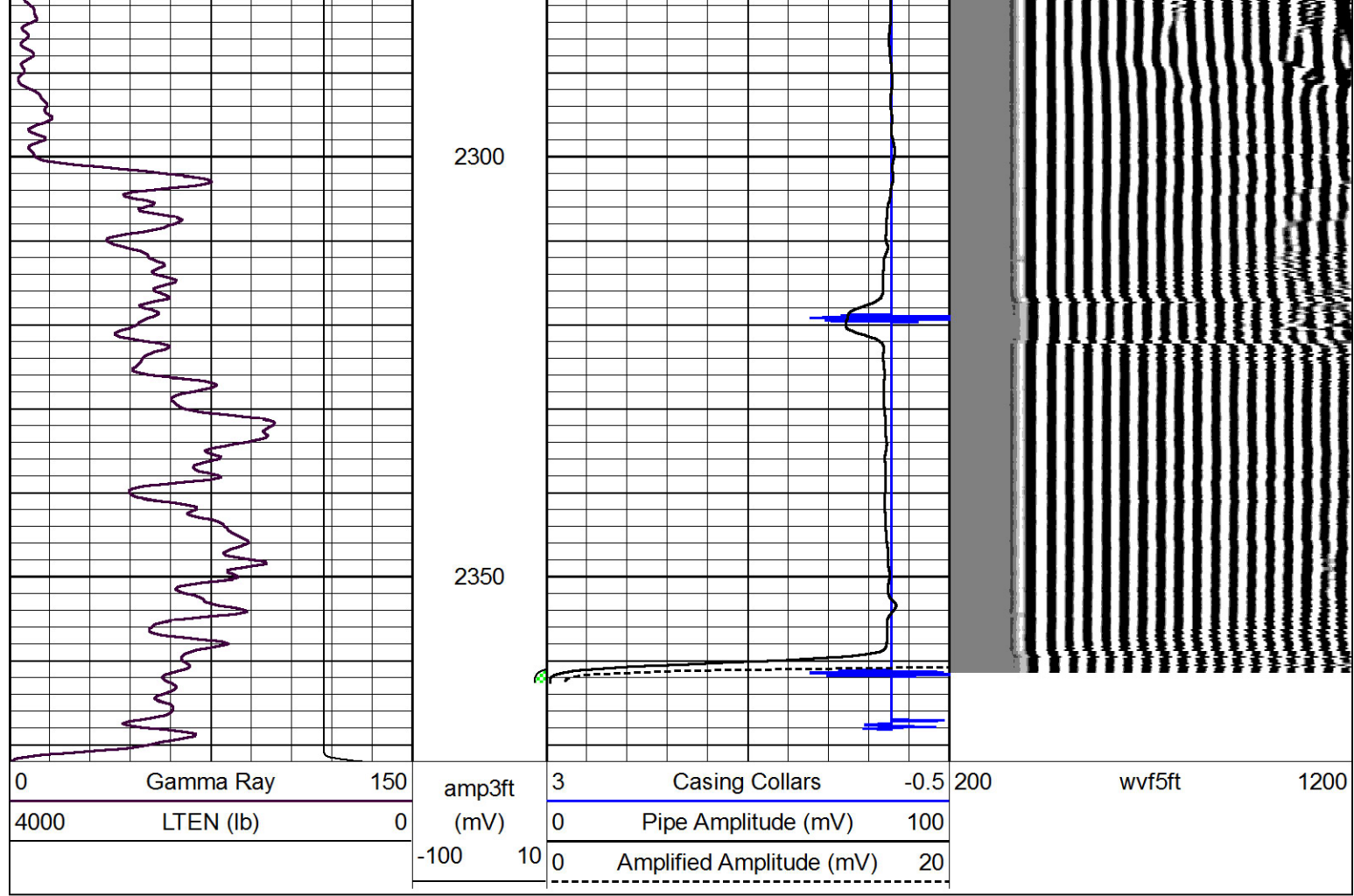
Comments

Thank you for using Pioneer Energy Services
785.625.3858
Quinter Ks.,
N on Castle Rock Rd.,
2 N, 1/2 W, S into

Database File: cobalt_brooks_1-18.db
 Dataset Pathname: grcbl/pass4
 Presentation Format: cbldr
 Dataset Creation: Thu Apr 04 10:25:13 2013 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240

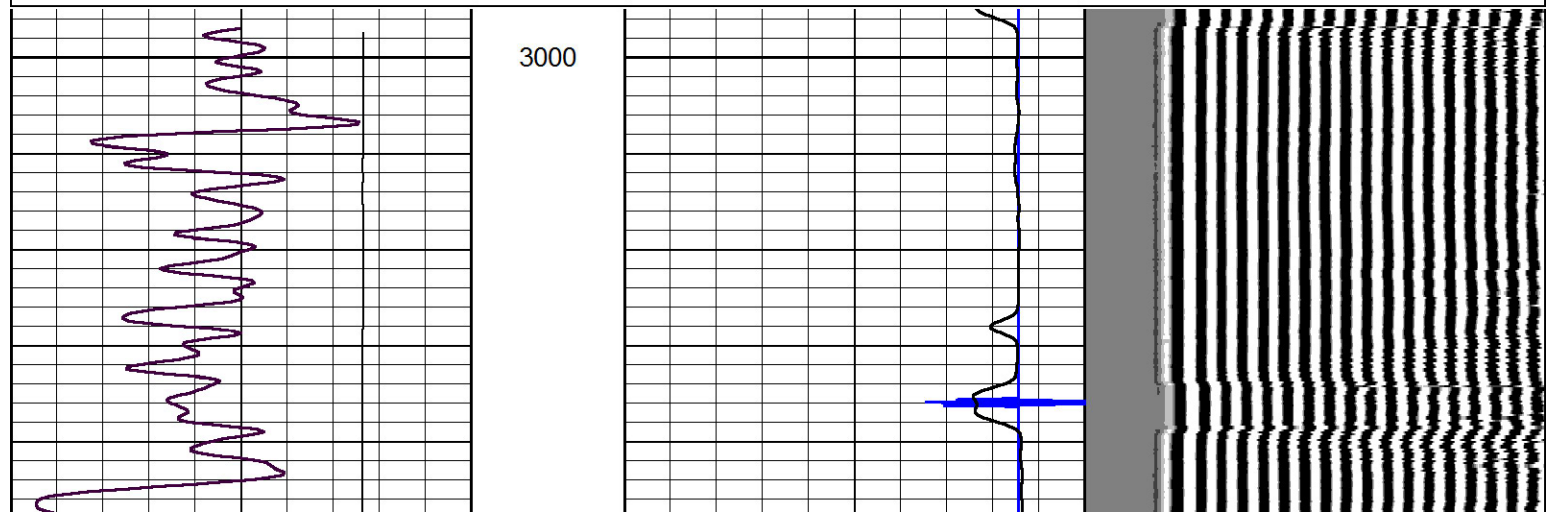
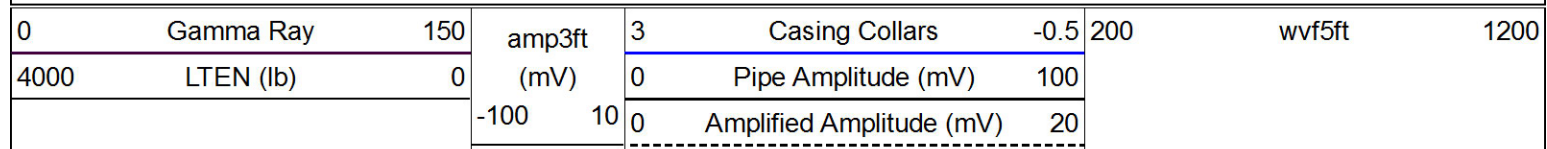
0	Gamma Ray	150	amp3ft	3	Casing Collars	-0.5	200	wvf5ft	1200
4000	LTEN (lb)	0	(mV)	0	Pipe Amplitude (mV)	100			
			-100	10	0	Amplified Amplitude (mV)	20		

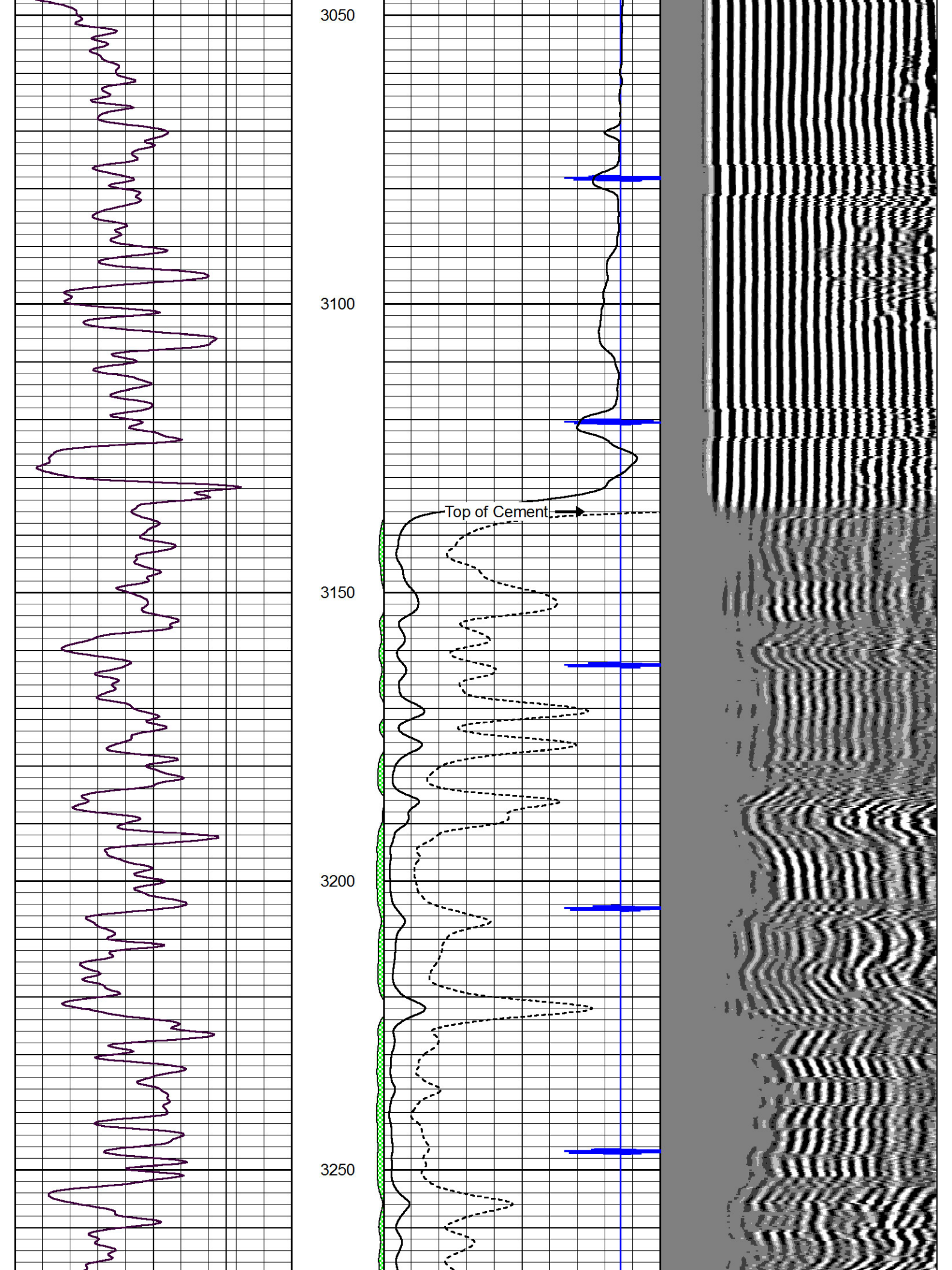


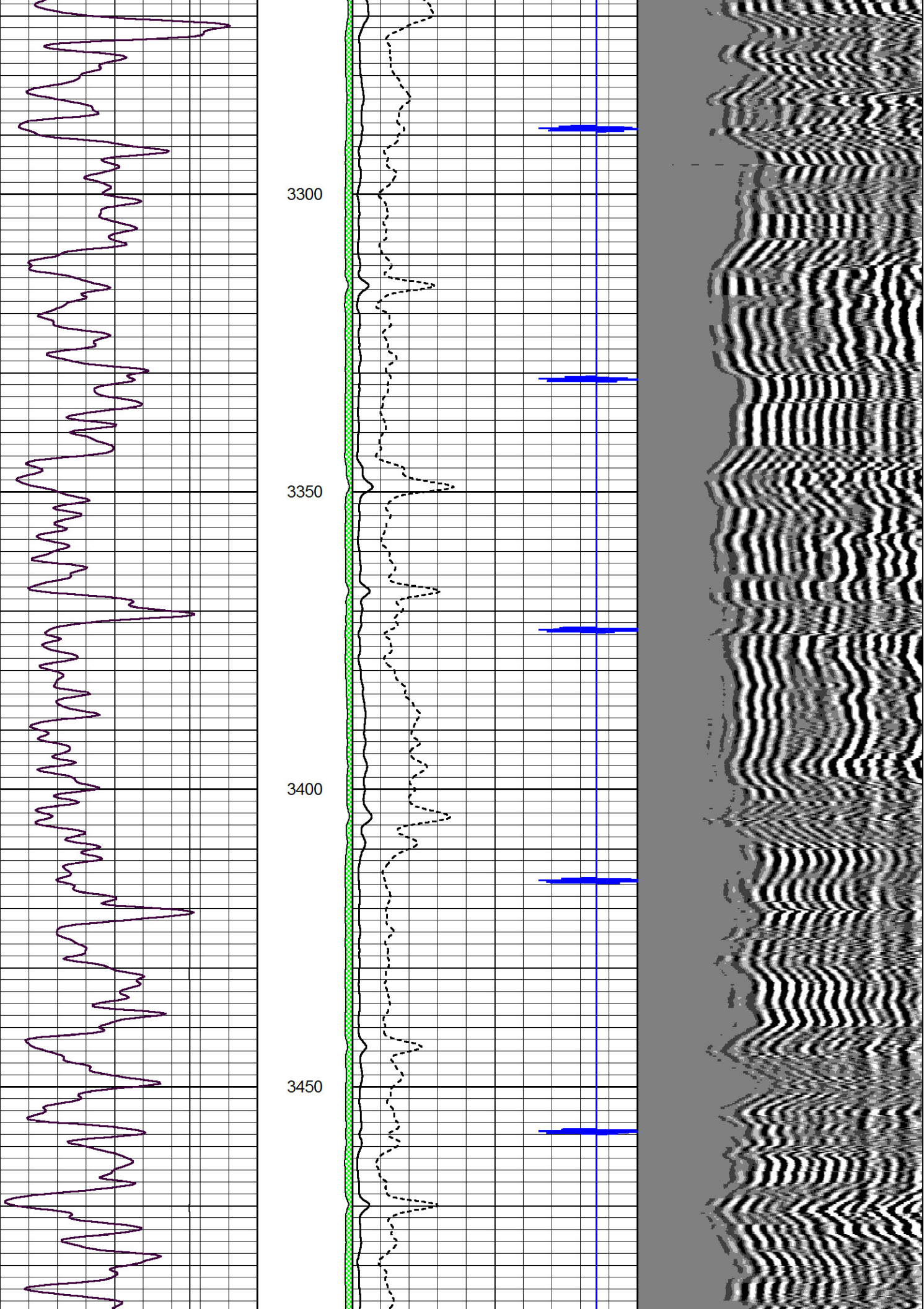


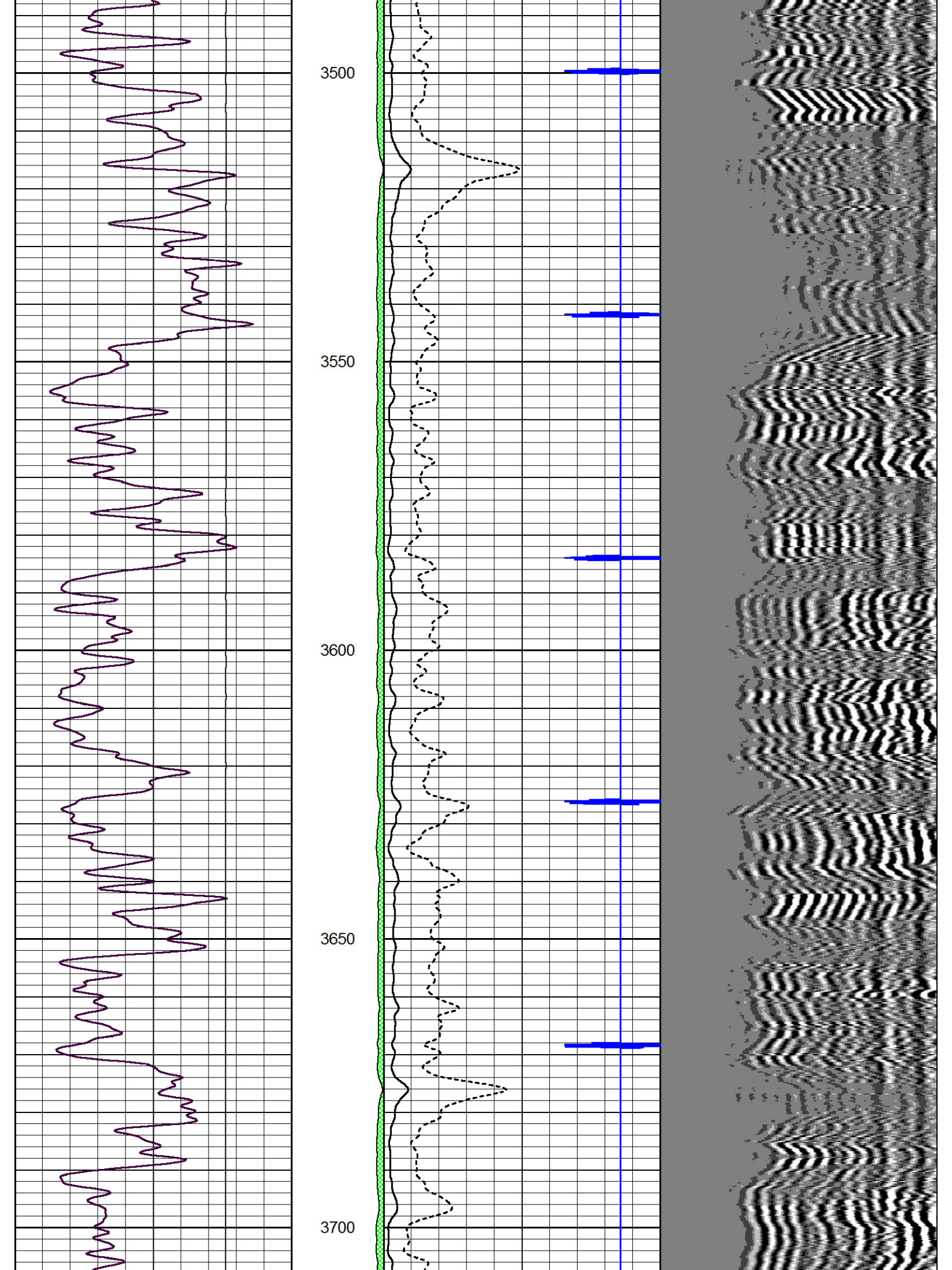
Main Pass

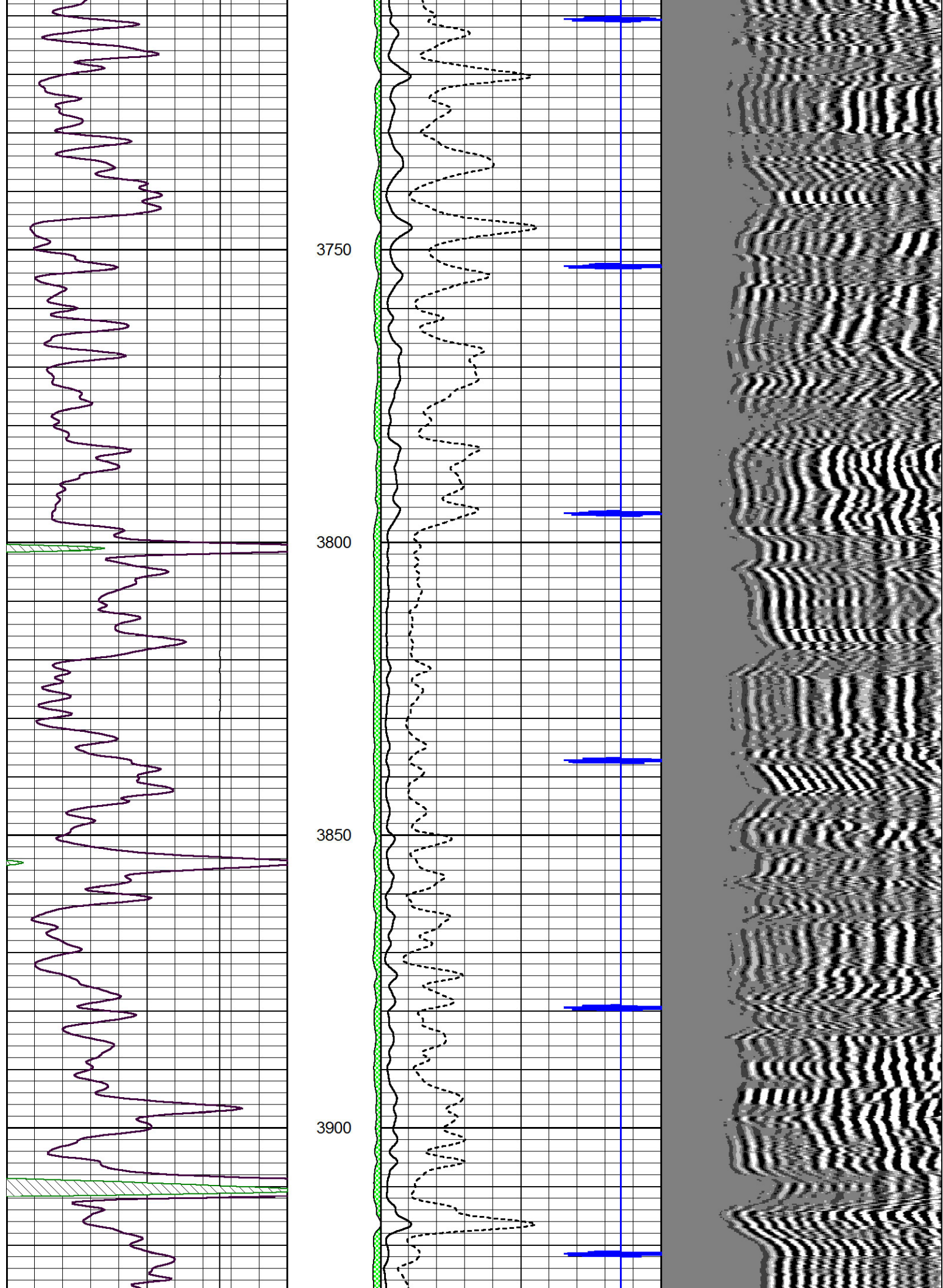
Database File: cobalt_brooks_1-18.db
 Dataset Pathname: grcbl/pass3.1
 Presentation Format: cbldr
 Dataset Creation: Thu Apr 04 10:24:21 2013 by Calc 7.0 B1
 Charted by: Depth in Feet scaled 1:240

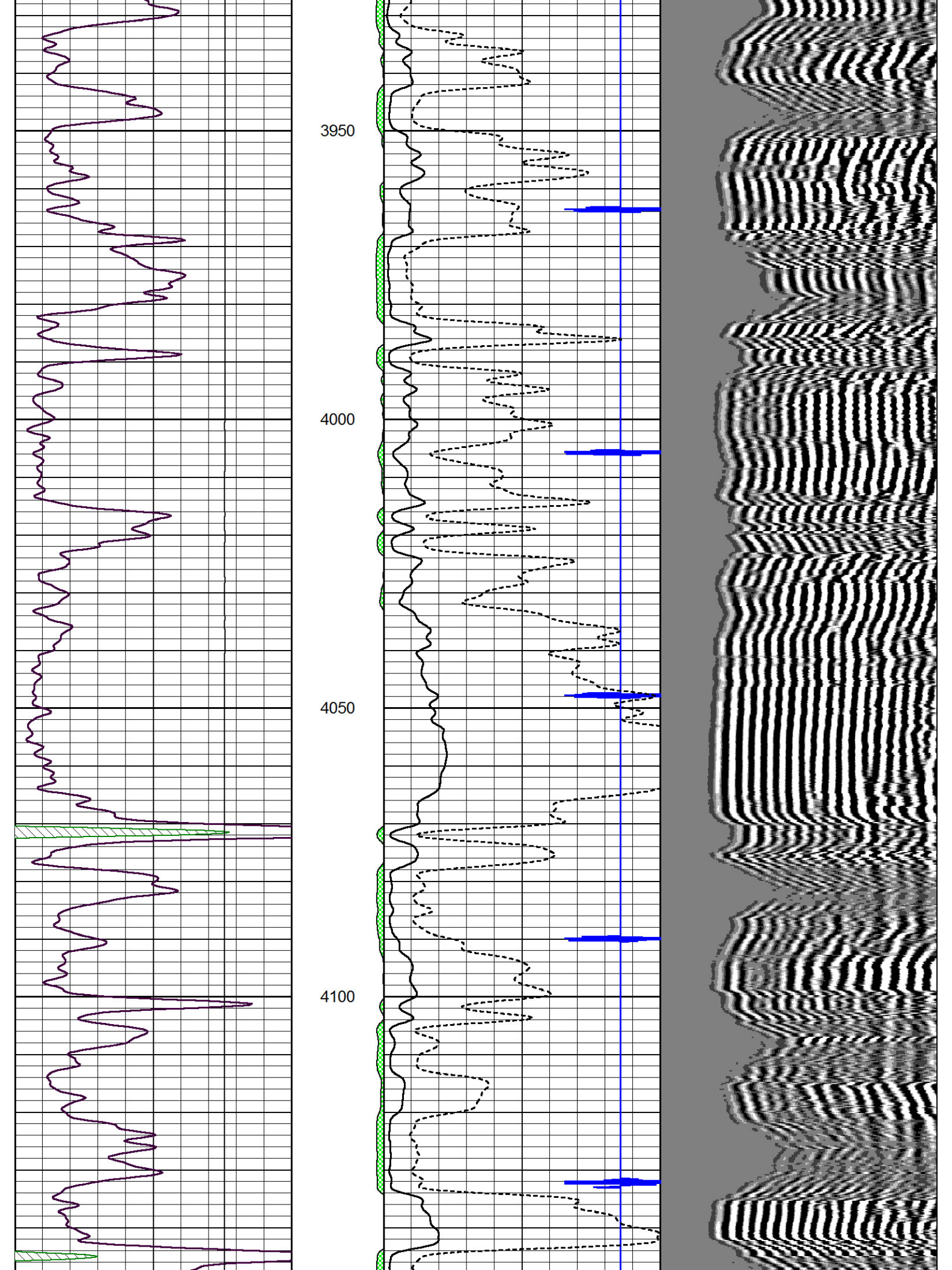


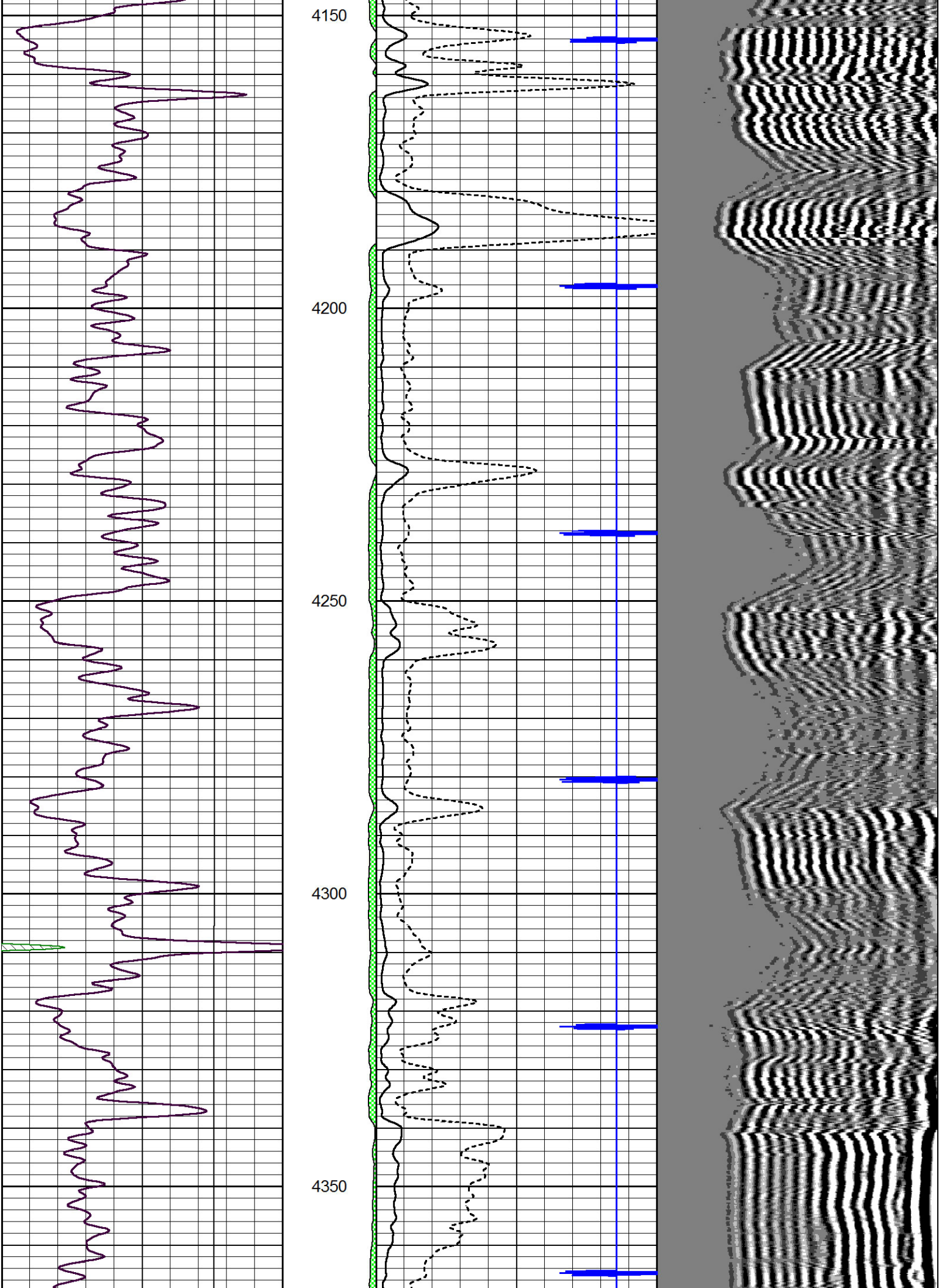


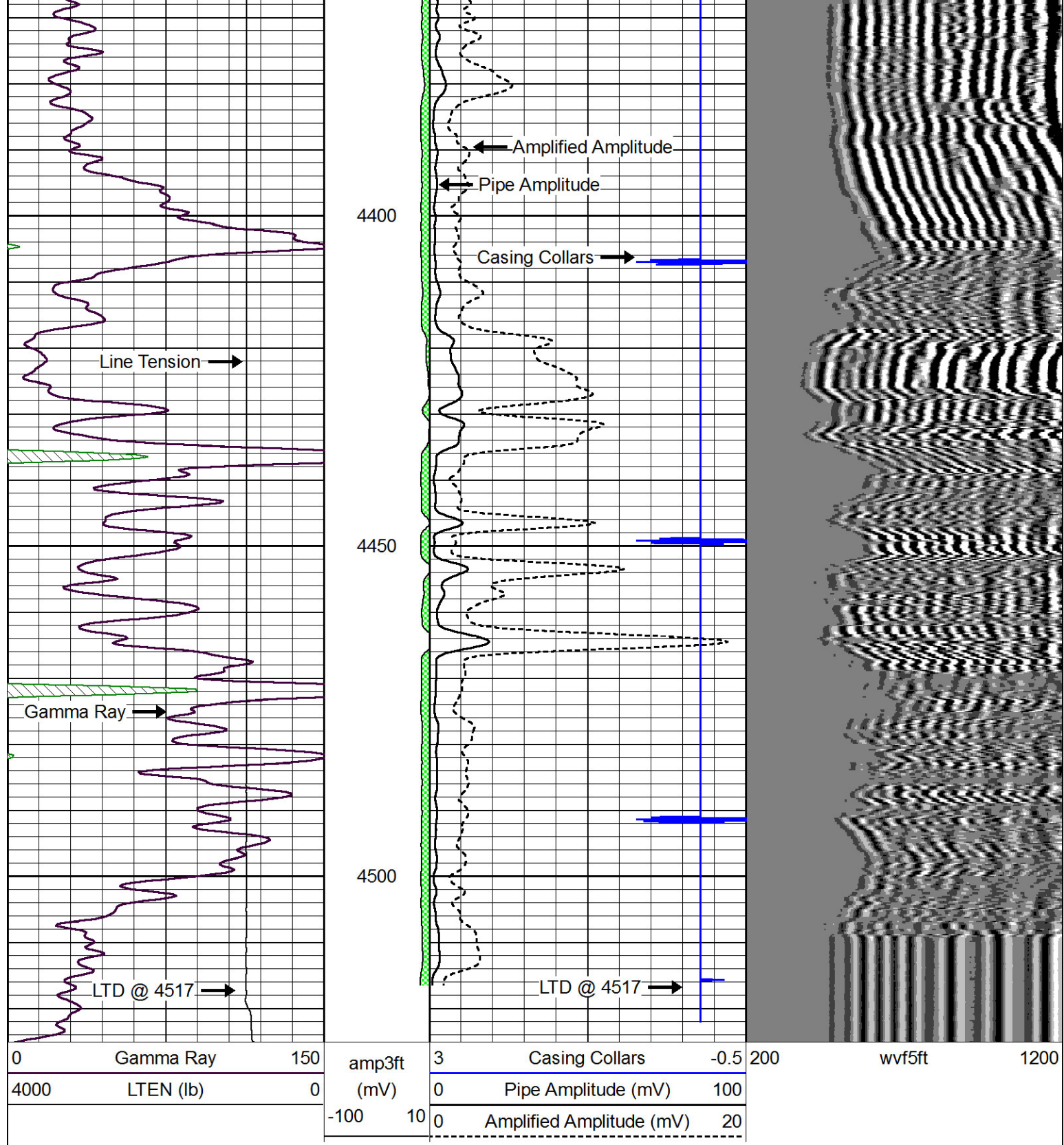








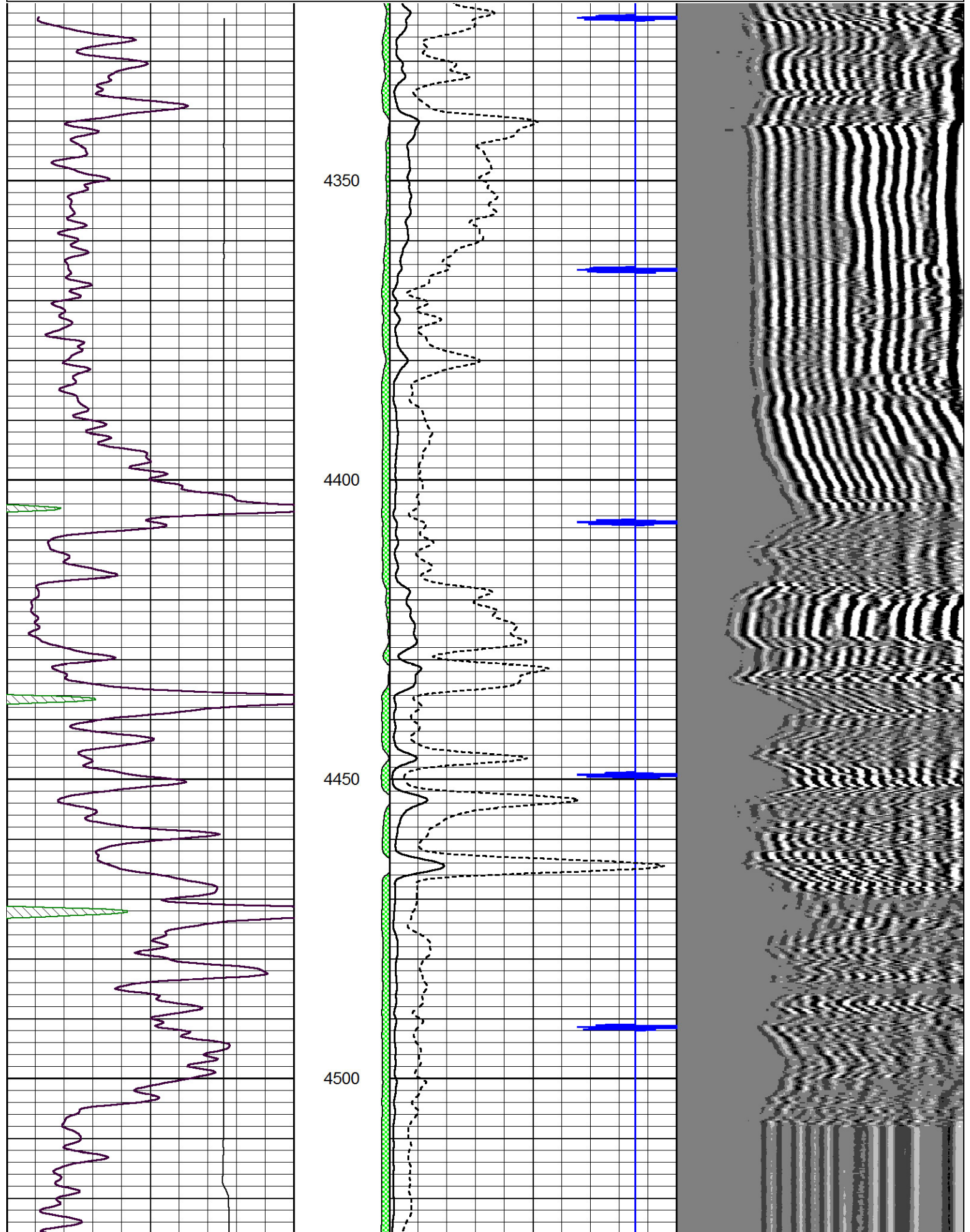


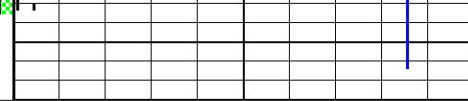
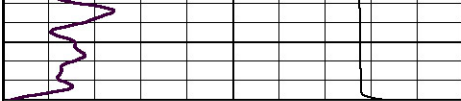


Repeat Section

Database File: cobalt_brooks_1-18.db
 Dataset Pathname: grcbl/pass2
 Presentation Format: cbldr
 Dataset Creation: Thu Apr 04 09:46:08 2013 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	amp3ft	3	Casing Collars	-0.5	200	wvf5ft	1200
4000	LTEN (lb)	0	(mV)	0	Pipe Amplitude (mV)	100			
			-100	10	0	Amplified Amplitude (mV)	20		





0	Gamma Ray	150	amp3ft	3	Casing Collars	-0.5	200	wvf5ft	1200
4000	LTEN (lb)	0	(mV)	0	Pipe Amplitude (mV)	100			
			-100 10	0	Amplified Amplitude (mV)	20			